REMARKS

Claims 1 and 3-11 are pending in the present application. Claims 1, 3 and 4 have been amended and claims 5-11 have been added. Claim 1 is independent. The specification has been amended. Reconsideration of this application, as amended, is respectfully requested.

Objection to the Declaration

The Declaration stands objected to since the specification to which the oath or declaration is directed has not been adequately identified. Attached to the present Amendment is a copy of the Declaration along with a copy of the specification that was attached to the Declaration when the Declaration was executed. Accordingly, the Declaration objection has been obviated. Reconsideration and withdrawal of this objection are therefore respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hasegawa et al. in view of Japan 408 and/or German 017. Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hasegawa et al. in view of Japan 408 and/or German 017 and further in view of Europe 391. Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hasegawa et al. in view of Japan 408 and/or German 017 and further in view of Sulkowski.

The present invention is directed to a pneumatic tire, wherein a combination of elements are recited including the recitation "the ratio (WLo/WSo) of said circumferential width (WLo) to said circumferential width (WSo) is larger than a ratio (WLi/WSi) of a circumferential width

(WLi) of the first shoulder groove to a circumferential width (WSi) of the second shoulder groove, each measured at the circumferential groove." In addition, independent claim 1 recites "the width (WLo) is larger than the width (WLi)", "the width (WSo) is larger than the width (WSi)" and "the width (WLi) and the width (WSi) are each in a range of from 4.0 to 12.0% of a tread width (TW)." Applicant respectfully submits that the references relied on by the Examiner fail to teach or suggest the present invention as recited in independent claim 1.

The Examiner recognizes that Hasegawa et al. discloses the provision of alternating wide and narrow shoulder grooves. However, the Examiner also recognizes that Hasegawa et al. fails to disclose the recitation of the ratio (WLo/WSo) being larger than the ratio (WLi/WSi) as recited in independent claim 1 of the present invention.

The Examiner has taken the position that the Japan 408 or German 017 references make up for the above deficiency of Hasegawa et al., since these references disclose "gradually increasing the width of all shoulder lateral grooves toward the tread edge" (see page 3, lines 7-12 of the Examiner's Office Action). Although these references may disclose a gradual increase in width of the shoulder grooves, Applicant submits that such a teaching, if applied to the Hasegawa et al. reference, would not arrive at the presently claimed invention. Specifically, claim 1 of the present invention does not merely require that the shoulder grooves gradually increase in width and that one shoulder groove is wider than another shoulder groove as appears to be the position of the Examiner. Claim 1 of the present invention states "the ratio (WLo/WSo) ... is larger than the ratio (WLi/WSi)." Since it is entirely possible to have a situation where shoulder grooves gradually increase in width and one shoulder groove is wider than another

shoulder groove, but not satisfy the inequality of (WLo/WSo) > (WLi/WSi), Applicant submits that the Examiner's rejection is proper.

For example, if the combination of Hasegawa et al. and Japan 408 and/or German 017 disclosed shoulder grooves (1) and (2) as follows, there would be an increase in width between the shoulder grooves and one shoulder groove would be wider than the other. However, the inequality (WLo/WSo) >(WLi/WSi) would not be satisfied.

Shoulder groove (1): WLi = 1 and WLo = 1.1; and

Shoulder groove (2): WSi = .8 and WSo = .9.

Therefore, (WLo/WSo) > (WLi/WSi)

1.1/.9 > 1/.8

1.22 > 1.25 is not true.

The above numbers were obtained as an example where the shoulder groove (1) is 1.25 times the width of shoulder groove (2) as disclosed in Hasegawa et al. and as mentioned by the Examiner on page 3, line 5. Of course, it is possible to have the inequality (WLo/WSo) > (WLi/WSi) satisfied if shoulder grooves having different widths are selected. However, since the inequality (WLo/WSo) > (WLi/WSi) is not always satisfied with the teachings of Hasegawa et al., Japan 408 and German 017, Applicant submits that the references relied on by the Examiner are sufficient to render obvious the present invention as recited in independent claim 1. There would have to be an additional suggestion to further modify Hasegawa et al. to satisfy the inequality (WLo/WSo) > (WLi/WSi), which the Examiner has not provided. Therefore, the Examiner's rejection should be withdrawn.

Although Applicants believe that originally presented independent claim 1 defines the present invention over the references relied on by the Examiner, in order to expedite prosecution, independent claim 1 has been amended to include the subject matter of dependent claim 2, as well as to recite that the width (WLi) and the width (WSi) are each in a range of from 4.0 to 12.0% of a tread width (TW). Applicant respectfully submits that the Hasegawa et al. reference fails to disclose this aspect of the present invention. Referring to Table 1 of Hasegawa et al., the widths (WA) and (WB) are disclosed as being 3 and 1.5, respectively. It is also disclosed at column 5, lines 35-38 of Hasegawa et al. that the groove width (WA) is preferred to be in the range of from 1.5 to 3.0 mm and the groove width (WB) is preferred to be in the range of from 0.8 to 1.2 mm. Since the tread width disclosed in Hasegawa et al. is 164 mm (see Table 1), Hasegawa et al. fails to disclose a width of the lateral grooves being from 4.0 to 12.0% of the tread width (TW) as in the present invention.

The above can be understood by considering that a width of the lateral grooves would have to be between 6.56 and 19.68 mm for a tread width that is 164 mm. Since the Hasegawa et al. reference fails to disclose this aspect of the present invention and the references relied on by the Examiner provide no suggestion to modify Hasegawa et al. to arrive at the present invention, Applicant submits that independent claim 1 of the present invention defines over the references relied on by the Examiner for this additional reason.

With regard to dependent claims 3 and 4, Applicants respectfully submits that these claims are allowable due to their dependence upon allowable independent claim 1, as well as due to the additional recitations in these claims.

With regard to the Examiner's reliance on the Europe 391 reference to reject claim 3, this reference merely discloses a ratio of the width of one shoulder groove to another shoulder groove being equal to 1. However, this is contrary to the teachings of Hasegawa et al. and therefore non-obvious (Hasegawa discloses a minimum ratio of 1.25). In addition, changing the ratio of the widths of the shoulder grooves does not change the fact that the inequality (WLo/WSo) > (WLi/WSi) does not have to be satisfied by the combination of references for the same reasons mentioned above with regard to the Examiner's rejection of independent claim 1. Finally, if the ratio of the width of the shoulder grooves is equal to 1 as appears to be asserted by the Examiner, then the recitation WLo is larger than WSo as recited in claim 1 would no longer be satisfied.

With regard to claim 4, the Examiner relies on Sulkowski to disclose a crank-shaped shoulder groove. However, Sulkowski fails to disclose the inequality (WLo/WSo) > (WLi/WSi) as recited in independent claim 1. Therefore, Sulkowski fails to make up for the deficiencies of Hasegawa et al., Japan 408 and German 017.

In view of the above amendments and remarks, Applicant respectfully submits that claims 1, 3 and 4 clearly define the present invention over the references relied on by the Examiner. Accordingly, reconsideration and withdrawal of the Examiner's rejections under 35 U.S.C. § 103 are respectfully requested.

Additional Claims

Additional claims 5-11 have been added for the Examiner's consideration. Applicant respectfully submits that these claims are allowable due to their dependence upon allowable independent claim 1, as well as due to the additional recitations in these claims.

Favorable consideration and allowance of additional claims 5-11 are respectfully requested.

CONCLUSION

Since the remaining references cited by the Examiner have not been utilized to reject the claims, but merely to show the state-of-the-art, no further comments are deemed necessary with respect thereto.

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Paul C. Lewis, Registration No. 43,368 at (703) 205-8000 in the Washington, D.C. area.

Dated: September 21, 2005

Respectfully submitted,

By _____

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Attachments